## Lightweight Materials and Structures

Completed Technology Project (2011 - 2014)



#### **Project Introduction**

Current inflatable structures are designed on the restraint layer's short term properties with a Factor of Safety of 4 due to lack of long-term data on structural fabrics. Long-term (5-years) end of life properties of restraint layer materials under loads, are unknown.

#### **Primary U.S. Work Locations and Key Partners**



| Organizations<br>Performing Work | Role         | Туре   | Location |
|----------------------------------|--------------|--------|----------|
| ★Langley Research                | Lead         | NASA   | Hampton, |
| Center(LaRC)                     | Organization | Center | Virginia |

| Primary U.S. Work Locations |       |
|-----------------------------|-------|
| California                  | Texas |
| Virginia                    |       |



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# Organizational Responsibility

# Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

#### Lead Center / Facility:

Langley Research Center (LaRC)

#### **Responsible Program:**

Game Changing Development



## Lightweight Materials and Structures





### **Project Management**

**Program Director:** 

Mary J Werkheiser

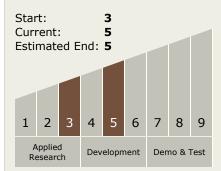
Program Manager:

Gary F Meyering

**Principal Investigator:** 

Lynn M Bowman

# Technology Maturity (TRL)



### **Target Destinations**

Earth, The Moon, Mars

